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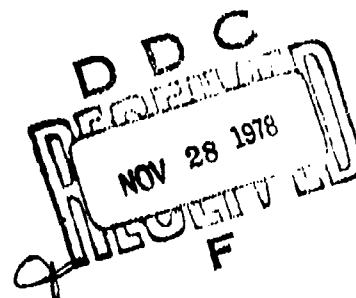
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VALIDITY OF PEER RATINGS OBTAINED DURING RANGER TRAINING

Arthur C. F. Gilbert and Ronald G. Downey



PERSONNEL AND MANPOWER TECHNICAL AREA

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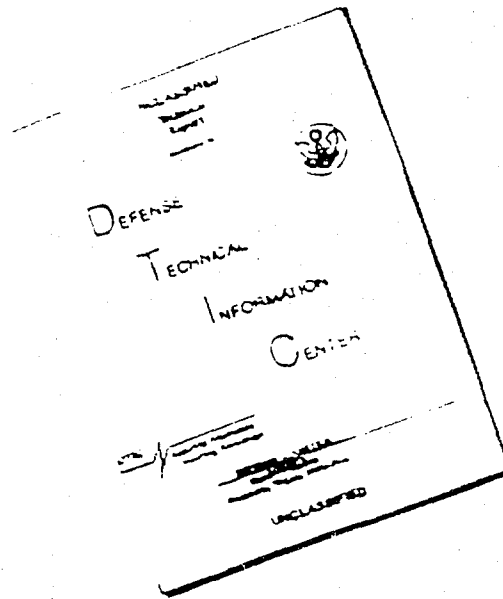
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October 1978

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<p>The purpose of this research was to evaluate the validity of peer ratings obtained during the Ranger course in predicting subsequent performance in actual duty assignments. A criterion instrument was used to obtain ratings of overall duty performance and of potential performance in combat leadership, technical-managerial leadership, tactical knowledge, defining personal roles, decisionmaking, defining functional roles, motivating troops, and tactical knowledge. The relationships among the peer ratings, measures of Ranger</p> <p style="text-align: right;">(continued) →</p>		

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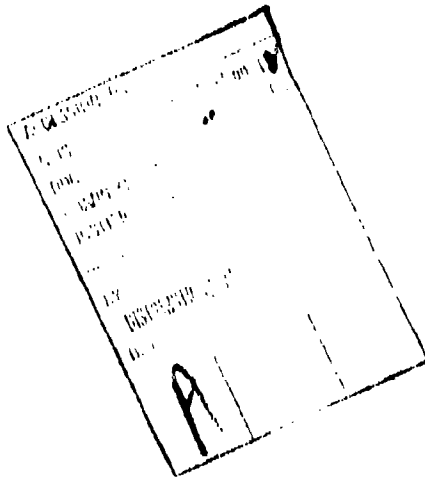
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course performance and the criterion measures of performance and potential performance were assessed by correlation techniques. Results indicate that the relationship between peer ratings and ratings of performance and potential performance was higher than for other measures of student performance in the Ranger course.



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VALIDITY OF PEER RATINGS OBTAINED DURING RANGER TRAINING.

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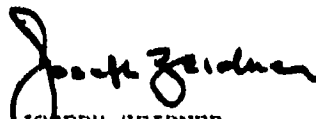
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FOREWORD

The Personnel and Manpower Technical Area of the Army Research Institute for the Behavioral and Social Sciences (ARI) conducts research to provide scientific methods of identifying individuals with good leadership potential, selecting officers for commissioning, and evaluating officer performance. One means of prediction and assessing leadership potential is through associate evaluations (peer ratings), which have long been used at the U.S. Military Academy and in Officer Candidate Schools. In 1972, the office of the Deputy Chief of Staff for Personnel asked ARI to investigate the value of associate evaluations in all officer schools, beginning with the Ranger course. ARI Research Problem Review 76-8 presented the results of the initial program at the Ranger school during FY 1973; this report describes the validation of those initial Ranger peer ratings by comparing them with special evaluations of the same men's performance in FY 1976. The research was accomplished under Army Project 2Q762717A766, in response to requirements of the Office of the Deputy Chief of Staff for Personnel. Portions of this paper were presented at the 17th annual conference of the Military Testing Association, 17-19 September 1975.

The associate evaluation program has become operational at other officer training schools. Associate evaluation techniques are still valuable for feedback and evaluation in officer acquisition and training programs, including ROTC, and are valuable predictors of officer success.


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VALIDITY OF PEER RATINGS OBTAINED DURING RANGER TRAINING

BRIEF

Purpose:

To establish the validity of associate ratings obtained in selected classes of the Ranger course in predicting subsequent performance in officer duty assignments.

Procedure:

Associate ratings and other measures of performance in the Ranger course had been obtained on 470 officers attending the first three Ranger classes in FY 1973. In FY 1976 special-purpose performance evaluations were obtained for 313 of the 470 officers and the two sets of evaluations compared.

Findings:

Associate ratings obtained during Ranger training were found to be predictive of all attributes measured by the performance evaluation form. The highest degree of predictive validity was obtained for ratings on the ability defined as "making decisions and initiating action under pressure." Platoon associate ratings during training were better predictors of ratings of performance or of potential performance than squad peer evaluations. Both tactical officers' evaluations and total Ranger course grades were found to be significantly related to several scales of the performance evaluation, but to a lesser degree than either form of peer evaluation.

Utilization of Findings:

Associate ratings appear to have substantial value in predicting subsequent duty performance of officers who attended the Ranger course.

VALIDITY OF PEER RATINGS OBTAINED DURING RANGER TRAINING

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VALIDITY OF PEER RATINGS OBTAINED DURING RANGER TRAINING

INTRODUCTION

The military has a long history of using associate evaluations. Some of the better known programs include the aptitude for service ratings at the U.S. Military Academy (Haggerty, 1963; Tobin & Macrum, 1967), Officer Candidate School ratings (Parrish & Drucker, 1957), basic training ratings (Gordon & Medland, 1965), and the use of peer ratings in the assessment of officers at the senior field grade level (Downey, Medland, & Yates, 1976). The success of these and other programs was a major factor in a 1972 decision by the Office of the Deputy Chief of Staff for Personnel to investigate the use of associate ratings in Army Officer training courses. The Ranger course was selected as a pilot model for this appraisal technique because of the course's importance for the Army leader's primary role in ground combat and because of the extensive field exercises involved.

Downey (1976) reported the results of an earlier phase of the research that focused on the feasibility, reliability, and acceptability of associate ratings in the Ranger course. Generally, the results indicated that, in this context, associate evaluations were feasible in terms of administration and automated scoring and were reliable across different training periods and different groups of evaluators. However, even though Ranger course students generally expressed the opinion that associate evaluations were appropriate and valid measures of leadership, they were not positive about the use of those evaluations in an Army personnel system.

OBJECTIVES

The major objective of this research was to establish the validity of the associate ratings obtained by Downey in the Ranger course by showing their ability to predict officer performance in subsequent duty assignments. To meet this objective, it was necessary to evaluate the psychometric properties of the device designed to measure officers' duty performance. Another objective was to compare the relative effectiveness of associate ratings with other training grades in predicting duty performance.

METHOD

Sample

Peer rating evaluations and other information were collected on 470 officers who attended three different Ranger classes during FY 1973. In FY 1976, performance ratings forms were mailed for 427 (91%) of these officers. Usable performance evaluation measures were returned and processed for 313 (73%) of those mailed. Thus, performance measures were obtained on 67% of the original sample of 470 officers.

Data Collection Instruments

Peer Evaluations. The peer evaluations had been obtained within the training platoon. As an independent requirement, the Ranger course student evaluation system also included peer evaluations, but within the squad setting. In the platoon peer evaluations, each member was required to nominate the eight highest and the eight lowest members of the platoon whom he would most like or least like "to serve with in combat because of his potential for effective leadership." Downey (1976) describes this procedure in greater detail. The peer evaluations were obtained at the end of each of the three phases of Ranger training: a garrison phase at Fort Benning, Ga., a mountain phase in Georgia, and a jungle phase at Eglin Air Force Base, Fla. A composite peer evaluation score combining all three peer evaluations was also derived.

Ranger Training Scores. A variety of training evaluation scores was obtained on students attending the Ranger course: (a) nine different training grades, including three tactical training officers' (TAC) evaluations; (b) three squad-level peer evaluations; and (c) a final course grade. These scores are shown in Table 1.

Performance Evaluation Form. Previous research by Helme, Willemin, and Grafton (1971) and Helme, Willemin, and Day (1971) yielded eight broad dimensions of leadership style. Two other dimensions reflecting consideration and the initiation of structure were identified by Stogdill (1974) and Fleishman (1974). Consequently, the criterion instrument used in this research, the Performance Evaluation Form, was designed to yield ratings along nine broad dimensions identified by these research efforts, as well as one rating that reflected overall performance.

The 10 scales of the Performance Evaluation Form are shown in Table 2. Part I of the form evaluates the officer's overall performance in his principal duty assignment. Parts II and III rate the officer's potential performance along crucial domains of leadership. Table 2 shows the different dimensions, the scales that reflect these dimensions, and the research source of these dimensions, as well as

the abbreviated titles of the scales used in this report. On each scale, the rater was required to rank order the seven scales in Part II of the instrument, in terms of the officer's relative potential for future assignment, and was also to rate the officer on a 7-step scale. Parts I and III required only a rating.

Table 1.

Training Evaluation Scores for Ranger Students

Training grades:

- Land navigation score
- Physical training score
- Practical work exam
- Patrol grades
- Tactical training officer's evaluation, Fort Benning
- Tactical training officer's evaluation, mountain phase
- Tactical training officer's evaluation, Florida phase
- Spot reports
- Special observations

Squad associate evaluations:

- Fort Benning
- Mountain phase
- Florida phase

Final course grade

All ratings on the scales of the Performance Evaluation Form were performed on a 7-step scale; the 7 steps of this scale are defined in Table 3 and are adapted from previous work by Willemin (1965).

Four copies of this criterion instrument were mailed to the personnel officers responsible for the officer's records. One rating was to be accomplished by the officer's immediate superior. A second rating was to be accomplished by a superior officer other than the officer's immediate superior (but not necessarily the indorsing official) who was judged to know the officer's performance. The two additional ratings were to be made by two close associates who were judged to know the officer's performance. The three raters other than the immediate supervisor were designated by the personnel officer after talking with the officer's immediate supervisor.

Table 2

Performance Evaluation Form Scales, Corresponding
Factors, and Abbreviated Scale Titles

Performance Evaluation Form scale	Factor	Abbreviated title of scale
Part I		
Duty performance		Duty performance
Part II		
Applying tactical knowledge and skills in support of combat operations	Tactical staff skills ^a	Tactical knowledge
Understanding the mission and clearly defining personal roles of subordinates in its accomplishment	Team leadership ^a	Defining personal roles
Making decisions and initiating actions under pressure	Command of men ^a	Making decisions
Defining functional roles and duties in the process of developing subordinates to fill assignments for long-term unit effectiveness	Initiation of structure ^{b,c}	Defining functional roles
Planning and organizing manpower and materiel to meet situational requirements	Executive direction ^a	Planning and organization
Motivating troops to accomplishing the mission by taking into consideration their well-being and morale	Consideration ^{b,c}	Motivating troops
Applying knowledge of logistics and technical matters to solve support problems	Technical staff skills ^a	Technical knowledge
Part III		
Combat leadership	Combat leadership ^a	Combat leadership
Technical-managerial leadership	Technical-managerial leadership ^a	Technical-managerial leadership

^aHelme, Willemin, and Grafton (1971).

^bFleishman (1974).

^cStogdill (1974).

Table 3
Officer Performance Scale^a

Scale value	Description
7 <u>OUTSTANDING</u>	Far above the requirements of the situation, suggesting the highest kind of formal recognition through meritorious award, or decoration.
6 <u>SUPERIOR</u>	Markedly above the requirements of the situation, suggesting formal recognition through a special (favorable) efficiency report, or letter of commendation.
5 <u>ABOVE AVERAGE</u>	Somewhat above the requirements of the situation, suggesting informal recognition through specific favorable comment in his regular efficiency report, and through informal appreciation or commendation.
4 <u>AVERAGE</u>	Fully up to the requirements of the situation, suggesting general appreciation (perhaps mostly unexpressed).
3 <u>BELOW AVERAGE</u>	Somewhat below the requirements of the situation, though suggesting only the mildest kind of corrective action through informal recommendation for improvement, or through change of duty assignment within the organization.
2 <u>MARGINAL</u>	Markedly below the requirements of the situation, suggesting formal corrective action through a special (unfavorable) efficiency report, administrative admonition, letter or reprimand, summary court, or transfer out of the organization.
1 <u>UNSATISFACTORY</u>	Far below the requirements of the situation, suggesting the most drastic kind of formal corrective action through reclassification, demotion, general court, or boarding out of the Army.

^aAdapted from Willemin (1965).

Packets of rating forms were distributed for 427 of the officers who had attended the Ranger course. Ratings were obtained from the supervisors of 312 officers. Superior officers, other than the immediate supervisors, completed ratings forms on 307 officers. Ratings by at least one associate were received for 309 officers, and ratings by two associates were received for 304 officers. A usable set of ratings was defined as one that had at least two ratings. In all, 313 usable returns were received.

Analysis

The reliability estimates for the two scales of Part II of the Performance Evaluation Form were obtained using the alpha coefficient (Cronbach, 1951), treating each rater as an item. The extent to which the scales differentially reflected different types of leadership styles was evaluated by appraising the zero correlations among the ratings on these scales.

The validity of the associate ratings and of the separate Ranger training grades in predicting duty performance was evaluated by obtaining the zero order correlations between each of these measures and the 10 scales of the Performance Evaluation Form. Two separate issues relating to the predictive validities of the associate ratings and the Ranger training grades were addressed: (a) comparison of the ability of each of these measures to predict total performance, and (b) comparison of the relationships of these measures with each of the other Performance Evaluation Form scales.

RESULTS

Table 4 shows the sums and standard deviations for the ratings and rankings of the scales of the Performance Evaluation Form, along with the alpha coefficient reliability estimates and the numbers of cases on which these statistics were derived. The reliability estimates for the ratings ranged from .60 for duty performance to .51 for motivating troops. These reliability estimates are somewhat lower than those reported by Willemín (1965), who reported a reliability estimate of .73 for four raters using the same technique. The somewhat lower reliability estimates obtained in this research could be due to the fact that this sample of officers was more homogeneous with respect to performance; as Rangers, they were a more highly select group. The reliability estimates for the rankings of the scales ranged from .58 for tactical knowledge and skills to .30 for defining personal roles.

The correlations among the sums of the ratings and the sums of the rankings are shown in Table 5. The correlations among the ratings on the scales exceeded .70 with only four exceptions (all involving the technical knowledge scale). On the other hand, the correlations

Table 4

Performance Evaluation Form Scale Means, Standard Deviations,
Alpha Coefficient Reliabilities, and
Number of Subjects

Scales	Ratings			Rankings		
	Mean ^a	S.D.	Reliability	N	Mean ^b	S.D. Reliability
Duty performance ^c	23.2	3.4	.60	255	--	--
Combat leadership ^c	23.3	3.6	.58	293	--	--
Tech.-manag. leadership ^c	23.0	3.5	.58	303	--	--
Tactical knowledge	23.2	3.3	.52	294	17.6	5.3
Defining personal roles	23.0	3.3	.52	294	18.2	3.8
Making decisions	23.2	3.7	.59	296	17.1	4.6
Defining functional roles	21.9	3.3	.54	294	23.4	4.1
Planning and organization	22.9	3.3	.52	294	18.7	4.4
Motivating troops	22.5	3.5	.51	294	21.6	4.6
Technical knowledge	22.2	3.4	.56	295	23.7	5.6

^a Maximum mean = 28.0; minimum mean = 4.0.

^b A low ranking indicates area of greater effectiveness.

^c Ranking did not include these scales.

Table 5

Intercorrelations of the Performance Evaluation Form Scales
(n = 295)

Variables	Ratings																Rankings			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1. Duty performance																				
2. Combat leadership	.31																			
3. Reconnaissance leadership	.14	.81																		
4. Tactical knowledge	.73	.98	.74																	
5. Defining personal roles	.83	.83	.84	.83																
6. Making decisions	.83	.87	.81	.84	.87															
7. Defining functional roles	.75	.75	.82	.73	.84	.80														
8. Planning & organization	.76	.77	.83	.75	.83	.79	.83													
9. Motivating troops	.76	.79	.73	.75	.78	.79	.74	.73												
10. Technical knowledge	.69	.64	.78	.64	.71	.71	.75	.78	.68											
Rankings																				
11. Tactical knowledge	.07	.19	-.09	.33	.08	.13	.00	.00	.03	-.08										
12. Defining personal roles	.06	.01	.04	.01	.17	.04	.05	-.02	.02	-.11	.08									
13. Making decisions	.43	.37	.25	.40	.34	.53	.27	.24	.35	.18	.15	.10								
14. Defining functional roles	-.22	-.21	-.06	-.29	-.16	-.25	-.93	-.14	-.22	-.15	-.37	.03	-.39							
15. Planning & organization	-.10	-.16	-.04	-.16	-.09	-.17	-.05	.12	-.19	.01	-.31	-.20	-.28	.06						
16. Motivating troops	-.01	.11	.02	.01	.02	.06	.02	-.05	.39	-.02	-.18	-.16	.01	-.11	-.26					
17. Technical knowledge	-.20	-.30	-.11	-.31	-.27	-.31	-.21	-.12	-.28	.13	-.35	-.39	-.50	.05	-.19	-.21				

Note. Decimal points omitted.

among the rankings were moderate or low and generally negative in value. Use of the ranking technique (ipsative scores) forced this negative relationship, because if certain scales were ranked high, others had to be ranked low.

The correlation between the ratings and the rankings for the same type of scale was low in all instances except one. The exception was the scale that reflected ability in "making decisions and initiating action under pressure," which showed a correlation of .53 between the rating and ranking techniques. Furthermore, the rankings on the decision scale were more highly correlated with ratings on the other scales with the exception of the scale that reflected "technical knowledge."

The results indicated that both the ratings on each scale and, where applicable, the rankings of the scales yielded approximately the same reliability estimates, although the ratings were slightly higher. The high intercorrelations among the ratings on the scales indicated that these scales yielded little differentiation among the attributes being measured. On the other hand, results of analyzing the ranking indicated the most influential dimension in evaluating the overall duty performance of the officer. This dimension was "making decisions and initiating action under pressure," which yielded a correlation coefficient of .43 between rankings on this scale and duty performance. Even though the rankings of the scales showed some degree of differentiation among the attributes measured, this could be due to the forced properties of the ranking method rather than the stimulus material that constituted the scale descriptions.

Table 6 shows the zero order correlations between each of the Ranger training scores, including associate ratings, and each of the 10 rating scales of the Performance Evaluation Form. For the Ranger training scores, three types of evaluations--the platoon associate evaluations, the squad peer evaluations, and the tactical officer's evaluations--were combined across the three training phases to yield one overall score for each. The correlations between each of the Ranger training scores and each of the seven ranking scales of the Performance Evaluation Form are shown in Table 7.

The results shown in Table 6 indicate that the platoon associate ratings and the squad peer evaluations were statistically significant predictors of ratings on all 10 scales of the Performance Evaluation Form. The platoon associate evaluations yielded somewhat higher correlations with the criterion measures than did the squad peer evaluations. This could be due to the higher reliability of the platoon associate evaluations (Downey, 1976). Only in a few instances did the other training scores obtained in the Ranger course yield statistically significant correlations with the ratings of current performance or of potential performance in future assignments. Of particular interest here were the correlations between the criterion instrument scales and

Table 6

Intercorrelations of Performance Evaluation Form Ratings
and Ranger Training Scores
(n = 295)

Ranger training scores	Ratings ^a									
	1	2	3	4	5	6	7	8	9	10
1. Platoon peer evaluations	.28**	.33**	.24**	.31**	.28**	.35**	.28**	.21**	.31**	.19**
2. Land navigation score	-.03	-.01	-.04	.00	-.04	-.02	-.05	-.05	.04	-.02
3. Physical training	.06	.03	.03	.06	.09	.07	.06	.04	.12*	.03
4. Practical work exam	-.10	-.07	-.06	.02	-.07	.02	-.06	-.06	-.09	-.06
5. Patrol grades	.06	.08	.03	.05	.02	.06	.01	.05	.02	-.01
6. TAC-evaluations	.01	.07	.05	.12*	.06	.08	.07	.04	.09	.03
7. Squad peer evaluations	.22*	.22*	.16**	.24**	.21**	.26**	.18**	.15**	.21**	.11**
8. Spot reports	.02	.08	.03	.08	.03	.04	.03	.05	.06	-.02
9. Special reports	-.04	.02	-.02	.05	.01	.03	-.02	-.01	.02	.01
10. Total Ranger grade ^b	.01	.15*	.08	.15*	.08	.15*	.07	.10	.06	.01

- ^a
- 1 = Duty performance ratings
 - 2 = Combat leadership ratings
 - 3 = Tech.-manag. leadership ratings
 - 4 = Tactical knowledge ratings
 - 5 = Defining personal roles ratings
 - 6 = Making decisions ratings
 - 7 = Defining functional roles ratings
 - 8 = Planning & organization
 - 9 = Motivating troop ratings
 - 10 = Technical knowledge ratings

^b Weighted sum of all training grades.

*p = .05.

**p = .01.

Table 7

Intercorrelations of Performance Evaluation Form Rankings
and Ranger Training Scores
(n = 295)

Ranger training scores	Rankings ^a						
	11	12	13	14	15	16	17
1. Platoon peer evaluation	.17**	.03	.34**	-.20**	-.16**	.10	-.25**
2. Land navigation score	.04	.17**	-.01	-.06	-.03	.09	.09
3. Physical training	-.02	-.04	.07	-.04	-.04	.05	-.02
4. Practical work exam	.00	-.04	.04	-.09	.03	-.06	.09
5. School grades	.07	.00	.09	.00	-.04	-.06	-.05
6. TAC-evaluations	.13*	-.02	.14**	-.16**	-.12*	.00	-.02
7. Squad peer evaluations	.13*	.01	.32**	-.18**	-.11	.02	-.18**
8. Spot reports	.12*	-.13*	.06	-.12*	-.02	.04	.01
9. Special reports	.12*	.01	.03	-.09	-.12*	.02	.01
10. Total Ranger grades ^b	.13*	-.08	.15**	.07	.07	.03	.11

^aRankings were reversed so that a high value represents most effective.

Scale designations:

- 11 = Tactical knowledge rankings
- 12 = Defining personal roles rankings
- 13 = Making decision rankings
- 14 = Defining functional roles rankings
- 15 = Planning & organization rankings
- 16 = Motivating troops rankings
- 17 = Technical knowledge rankings.

^bWeighted sum of all training grades.

*p < .05.

**p < .01.

total Ranger grade. The correlations between the total Ranger grade and the scales reflecting combat leadership potential, tactical knowledge, and decisionmaking were all significant at the .05 level.

The correlations shown in Table 7 between the platoon associate evaluations and the ranking of five of the Performance Evaluation Form scales were statistically significant but negative in three instances (i.e., defining functional roles, planning and organization, and technical knowledge). Slightly smaller but statistically significant correlations in the same direction were obtained between the squad peer evaluations and four of these five scales. The correlation between the squad peer evaluations and the scale on technical knowledge was not significant. Evaluations made by the tactical officer yielded statistically significant correlations with the ranking on four of the scales. Further examination of Table 7 reveals other statistically significant relationships between certain training scores and the criterion measures. The negative validity coefficients for three of the ranking scales (defining functional roles, planning and organization, and technical knowledge) would seem to be a function of the ipsative nature of the rankings. This phenomenon may merely mean that officers not perceived high in decisionmaking and tactical knowledge received lower rankings in these areas. The intercorrelations of ratings would seem to confirm this idea.

Again, both the platoon associate evaluations and the squad peer evaluations were generally the best predictors of rankings of the scales measuring potential performance. The platoon associate evaluations yielded slightly higher correlations with the criteria than did the squad evaluations.

Table 8 shows the means and standard deviations of the Ranger training scores for the officer sample used in this research and the difference between the mean scores of this sample and the mean scores of the original sample of 470 officers who attended the course. The decrease in sample size was due to the fact that performance ratings could not be obtained on some officers because they had left the Army or were in a transient status; in some instances, the Performance Evaluation Forms were lost. Table 8 reveals that only minor differences existed between the two samples and that these differences do not represent any systematic bias in terms of training grades.

DISCUSSION

The reliability estimates of each of the rating scales of the Performance Evaluation Form, as well as the rankings of the scales which used rankings, were considered satisfactory for criteria. However, the distribution of ratings on the different scales showed a tendency toward negative skewness.

Table 8

Ranger Training Score Means and Standard Deviations for
the Validity Sample, and Difference in Mean
Scores from the Entire Training Sample

Ranger training scores	Mean	S.D.	N	Difference in means
Platoon evaluations--Benning	2.06	.28	307	0
Platoon evaluations--mountain	2.0	.28	313	0
Platoon evaluations--Florida	2.02	.33	303	-.1
Land navigation	51.8	10.4	313	1.1
Physical training	26.9	6.6	313	.9
Practical work exam	87.0	4.1	313	1.0
Patrol grades	358.2	32.7	305	.2
TAC evaluation--Benning	22.2	3.3	313	.7
TAC evaluation--mountain	25.8	3.2	313	1.0
TAC evaluation--Florida	27.0	2.6	305	-.2
Squad evaluations--Benning	37.7	4.9	312	-.4
Squad evaluations--mountain	56.9	7.8	312	-1.0
Squad evaluations--Florida	55.4	6.3	303	-.6
Spot reports	-6.6	21.7	307	-.4
Special reports	-7.2	5.6	307	-1.2
Total Ranger performance	724.6	94.3	310	.2

Note. The training sample was made up of individuals who went through Ranger training but for whom validity data were not collected later.

As mentioned previously, the ratings on the different scales were highly intercorrelated. This indicates that, in this sample, the instrument did not reflect the expected differentiation among the attributes being assessed. Rankings of the scales tended to better differentiate important types of criterion performance.

In terms of predictive effectiveness of the platoon associate evaluations, the validity of these evaluations of the Rangers' performance were similar for all scales of the Performance Evaluation Form, with the lowest correlation being obtained between platoon associate evaluations and ability to apply technical knowledge. Of all the training scores, the peer evaluations yielded the highest relationship with all of the ratings on the 10 scales of the criterion measure. The total Ranger grade, as would be expected, was significantly correlated ($p < .05$) with the scales reflecting combat leadership, tactical knowledge, and decisionmaking. This is consistent with the nature and purpose of Ranger training.

The results were not as clearcut on the validity of peer evaluations in predicting the rankings of the scales that reflect potential performance. Significant positive relationships were found between peer evaluations and both the tactical knowledge scale and the decision-making scale. Significant negative relationships were discovered between peer evaluations and the scales that measured ability to define functional roles, planning and organization, and technical knowledge, given the "forced" nature of these rankings and the assumption that low performers were generally ranked high in these areas.

In summary, the scales of the criterion instrument were found to be reliable. A better degree of differentiation among the attributes measured was obtained by rankings than was obtained by ratings. Associate evaluations obtained during Ranger training were found to be predictive for all attributes reflected in the criterion instrument, with the highest predictive index obtained for ability to "make decisions and initiate action under pressure." Platoon associate evaluations were better predictors of ratings of performance or potential performance than were squad peer evaluations. Both the tactical officers' evaluations and the total Ranger course grades showed significant but smaller relationships than the peer evaluations with certain scales of the criterion ratings.

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